3/3 - (C) WPI / DERWEI

AN - 96-371444 [48]

AP - WO96DK00052 960131; AU960044830 960131; [Based on WO9623898] EP960900891 960131; WO96DK00052 960131; [Based on WO9623898]

PR - DK950000982 950907; DK950000110 950131

TI - New construct encoding modified green fluorescent protein - contg. e.g. enzyme recognition site, useful for detecting biologically active substances affecting intracellular processes

IW - NEW CONSTRUCTION ENCODE MODIFIED GREEN FLUORESCENT PROTEIN CONTAIN

ENZYME RECOGNISE SITE USEFUL DETECT BIOLOGICAL ACTIVE SUBSTANCE AFFECT

INTRACELLULAR PROCESS

IN - BJORN S P; POULSEN L K; THASTRUP O; TULLIN S; BJORN S; POULSEN L

PA - (NOVO) NOVO-NORDISK AS

PN - --- WO9623898--- A1 960808 DW9637 C12Q1/00 Eng 048pp

- AU4483096 A 960821 DW9648 C12Q1/00 000pp

- EP0815257 A1 980107 DW9806 C12Q1/00 Eng 000pp

ORD - 1996-08-08

IC - C07K14/435; C12Q1/00

FS - CPI

DC - B04 D16

DS - AT BE CH DE DK EA ES FR GB GR IE IT KE LI LS LT LU LV MC MW NL OA PT SD SE SI SZ UG

DN - AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN

CT - 1.Jnl.Ref; US4220450; WO9507463; WO9521191

AB - WO9623898 A novel DNA construct (I) comprises DNA sequence coding for:

- (i) a green fluorescent protein (GFP) where at least 1 amino acid has been substd., inserted or deleted to provide a binding domain of a second messenger or an enzyme, pref. a protein kinase, recognition site, or (ii) a hybrid polypeptide of GFP or a modified GFP and a binding domain of a second messenger or an enzyme recognition site. Also new is a DNA construct (II) contg. the 764 bp wild type GFP nucleotide sequence (sequence given in the specification).
- USE The method is useful to detect biologically active substances affecting intracellular processes. The constructs can be used to generate probes for use in basic research and in screening programmes to identify new biologically active substances.
- ADVANTAGE The use of luminescent probes allows real time studies of second messengers and specific enzymes, e.g. PKs, in single living cells. This makes it possible to study the precise timing and spatial characteristics of these factors. Studies on heterogeneity in cell populations are also possible. Due to the strong fluorescence of GFP, the luminescence of cells expressing the probes can be easily detected and analysed. The probes are easily introduced into cells.

- (Dwg.0/4)